IN THE CLAIM

1. (Currently Amended) A method for managing a memory system having a plurality of subsystems, comprising the steps of:

upon accessing the memory system for a piece of data used by a first process

determining ~~the~~ an access time to acquire the piece of data in the memory system;

comparing the determined access time to a threshold; and

taking actions based on ~~the~~ results of the comparing step; including postponing execution of the first process and allowing execution of a second process;

wherein a value of the threshold is selected based on one or a combination of

cost of switching processes for execution, and

whether the value is a realistic time for a memory access.

2. (Canceled)

3. (Currently Amended) The method of claim [2] 1 wherein an intelligence performing the steps of postponing and allowing upon a notification from a latency manager regarding a relationship between the determined access time and the threshold; the latency manager determining the relationship independent from the intelligence ~~latency manager notifying the intelligence that the determined access time is close to, equal to, or greater than the threshold; the latency manger performing the step of determining independent from the intelligence~~.

4. (Original) The method of claim 3 wherein the intelligence is selected from a group consisting of a processor working with the memory system, an operating system working with the memory system, software running on the processor, and a memory manager managing the memory system.

5. (Currently Amended) The method of claim 1~~, if the step of comparing indicates that the determined access time is close to, equal to, or greater than the threshold,~~ wherein the actions further ~~comprising the step of~~ include monitoring the memory system or a system using the memory system.

6. (Original) The method of claim 1 wherein the determined access time is selected as the longest access time of a plurality of access times each of which corresponds to a memory access in a multiple memory access.

7. (Original) The method of claim 1 further comprising the step of accessing the piece of data in more than one subsystem at the same time; one subsystem having a shorter access time and one subsystem having a longer access time; the determined access time being that of the subsystem having the shorter access time, and, if the piece of data is missed in the subsystem having the shorter access time, then the determined access time being that of the subsystem having the longer access time.

8. (Currently Amended) The method of claim 1 further comprising the step of updating a ~~previous~~ previously determined access time to the determined access time if the determined access time is greater than the ~~previous~~ previously determined access time.

9. (Original) The method of claim 1 further comprising the step of notifying an intelligence working with the memory system; the intelligence being selected from a group consisting of a processor, an operating system, software running on the processor, and a memory manager managing the memory system; the intelligence performing the step of taking actions.

10. (Original) The method of claim 1 further comprising the step of changing the determined access time upon performing a task selected from a group consisting of changing the threshold, initiating an interrupt to an intelligence working with the memory system, and postponing executing the first process and allowing executing a second process.

11. (Currently Amended) The method of claim 1 wherein the determined access time is selected from ~~the~~ a time to access at least one subsystem.

12. (Currently Amended) The method of claim 1 wherein a latency manager performing the step of determining; the latency manager being on ~~the~~ a data path between a processor working with the memory system and the plurality of subsystems.

13. (Original) The method of claim 1 wherein the data is accessed from a subsystem having a shorter access time to a subsystem having a longer access time or in a non-sequential order.

14. (Currently Amended) A method for managing a memory system having a plurality of subsystems, comprising the steps of:

comparing an access time of a subsystem to a threshold; a value of the threshold being selected based on one or a combination of cost of switching processes for execution and whether the value is a realistic time for a memory access;

earmarking [a] the subsystem based on results of the comparing step;

from the plurality of subsystems, determining an order for data to be accessed from a subsystem having a shorter access time to a subsystem having a longer access time; and

upon accessing the memory system for a piece of data used by a first process, if the data is missed in the earmarked subsystem, then postponing executing the first process and allowing executing a second process.

15. (Currently Amended) The method of claim 14 wherein an intelligence performing the steps of postponing and allowing upon notification from a latency manager regarding a relationship between the determined access time and the threshold ~~notifying the intelligence that the determined access time is close to, equal to, or greater than the threshold~~; the intelligence being selected from a group consisting of a processor working with the memory system, an operating system working with the memory system, software running on the processor, a memory manager managing the memory system; the latency manger being part of managing the memory system.

16. (Currently Amended) An apparatus for managing a memory system having a plurality of subsystems, comprising:

means for, upon accessing the memory system for a piece of data used by a first process,

determining ~~the~~ an access time to acquire the piece of data in the memory system;

comparing the determined access time to a threshold; and

taking actions based on ~~the~~ results of the comparing step; including postponing execution of the first process and allowing execution of a second process;

wherein a value of the threshold is selected based on one or a combination of

cost of switching processes for execution, and

whether the value is a realistic time for a memory access.

17. (Canceled)

18. (Original) The apparatus of claim 16 wherein the determined access time is selected as the longest access time of a plurality of access times each of which corresponds to a memory access in a multiple memory access.

19. (Original) The apparatus of claim 16 further comprising means for accessing the piece of data in more than one subsystem at the same time; one subsystem having a shorter access time and one subsystem having a longer access time; the determined access time being that of the subsystem having the shorter access time, and, if the piece of data is missed in the subsystem having the shorter access time, then the determined access time being that of the subsystem having the longer access time.

20. (Currently Amended) An apparatus for managing a memory system having a plurality of subsystems, comprising:

means for comparing an access time of a subsystem to a threshold; a value of the threshold being selected based on one or a combination of cost of switching processes for execution and whether the value is a realistic time for a memory access;

means for earmarking a subsystem; and

means for determining, from the plurality of subsystems, an order for data to be accessed from a subsystem having a shorter access time to a subsystem having a longer access time; ~~and~~

wherein upon accessing the memory system for a piece of data used by a first process, if the data is missed in the earmarked subsystem, then ~~means for~~ postponing ~~executing~~ execution of the first process and allowing ~~executing~~ execution of a second process.

21. (Currently Amended) A computer-readable medium embodying instructions for a computer to perform a method for managing a memory system having a plurality of subsystems, the method comprising the steps of:

upon accessing the memory system for a piece of data used by a first process,

determining ~~the~~ an access time to acquire the piece of data in the memory system;

comparing the determined access time to a threshold; and

taking actions based on ~~the~~ results of the comparing step; including postponing execution of the first process and allowing execution of a second process;

wherein a value of the threshold is selected based on one or a combination of

cost of switching processes for execution, and

whether the value is a realistic time for a memory access.

22. (Canceled)

23. (Original) The computer-readable medium of claim 21 wherein the determined access time is selected as the longest access time of a plurality of access times each of which corresponds to a memory access in a multiple memory access.

24. (Original) The computer-readable medium of claim 21 wherein the method further comprising the step of accessing the piece of data in more than one subsystem at the same time; one subsystem having a shorter access time and one subsystem having a longer access time; the determined access time being that of the subsystem having the shorter access time, and, if the piece of data is missed in the subsystem having the shorter access time, then the determined access time being that of the subsystem having the longer access time.

25. (Currently Amended) A computer-readable medium embodying instructions for a computer to perform a method for managing a memory system having a plurality of subsystems, the method comprising the steps of:

comparing an access time of a subsystem to a threshold; a value of the threshold being selected based on one or a combination of cost of switching processes for execution and whether the value is a realistic time for a memory access;

earmarking [a] the subsystem based on results of the comparing step;

from the plurality of subsystems, determining an order for data to be accessed from a subsystem having a shorter access time to a subsystem having a longer access time; and

upon accessing the memory system for a piece of data used by a first process, if the data is missed in the earmarked subsystem, then postponing executing the first process and allowing executing a second process.

26. (New) The computer-readable medium of claim 21 wherein the actions further include monitoring the memory system or a system using the memory system.

27. (New) The computer-readable medium of claim 21 wherein the method further comprising the step of updating a previously determined access time to the determined access time if the determined access time is greater than the previously determined access time.

28. (New) The computer-medium of claim 1 wherein the determined access time is selected from a time to access at least one subsystem.